

## C l a i m s

1. A method of determining the condition of a turbine blade (2, 4) in a compressor (1) and utilizing the collected information in an estimation of the lifetime of the turbine blade (2, 4), characterized in that a measured value reflecting the condition of the turbine blade (2, 4) is generated by a vibration sensitive sensor (10) connected to the compressor's (1) casing (6).
- 10 2. A method in accordance with claim 1, and where the measured values from the sensor (10) are filtered and referred to their respective frequencies, characterized in that the measured values within a frequency range are allocated a minimum and/or a maximum value, wherein if the peak level of the measured value falls outside the specified limit values, a signal is communicated to a lifetime estimation device.
- 20 3. A method in accordance with one or more of the preceding claims, characterized in that the frequency range is divided into at least two frequency ranges, each frequency range being allocated a minimum and/or a maximum value.
- 25 4. A device for determining the condition of a turbine blade (2, 4) in a compressor (1) and utilizing the collected information in an estimation of the lifetime of the turbine blade (2, 4), characterized

terized in that a vibration sensitive sensor (10) is fixed to the compressor's (1) casing (6).